

September 17, 2018

Chase Furr
Hepaco
2711 Burch Dr
Charlotte, NC 28269

RE: Project: EPA
Pace Project No.: 92399573

Dear Chase Furr:

Enclosed are the analytical results for sample(s) received by the laboratory on September 17, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Chad Edwards, HEPACO



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: EPA
Pace Project No.: 92399573

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

SAMPLE ANALYTE COUNT

Project: EPA
Pace Project No.: 92399573

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92399573001	SAMPLE 1	EPA 8082A	NU1	8	PASI-C
92399573002	SAMPLE 2	EPA 8082A	NU1	8	PASI-C

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: EPA
Pace Project No.: 92399573

Sample: SAMPLE 1 **Lab ID: 92399573001** Collected: 09/17/18 10:00 Received: 09/17/18 12:13 Matrix: Non Aqueous Liquid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3580								
PCB-1016 (Aroclor 1016)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	11141-16-5	
PCB-1242 (Aroclor 1242)	20.9	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	11096-82-5	
Surrogates								
Decachlorobiphenyl (S)	0	%	49-130	10	09/17/18 12:52	09/17/18 13:40	2051-24-3	D3,S4

Sample: SAMPLE 2 **Lab ID: 92399573002** Collected: 09/17/18 10:00 Received: 09/17/18 12:13 Matrix: Non Aqueous Liquid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3580								
PCB-1016 (Aroclor 1016)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	11141-16-5	
PCB-1242 (Aroclor 1242)	18.3	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	11096-82-5	
Surrogates								
Decachlorobiphenyl (S)	0	%	49-130	10	09/17/18 12:52	09/17/18 14:00	2051-24-3	D4,S4

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: EPA
Pace Project No.: 92399573

QC Batch: 430973 Analysis Method: EPA 8082A
QC Batch Method: EPA 3580 Analysis Description: 8082 GCS PCB Oil
Associated Lab Samples: 92399573001, 92399573002

METHOD BLANK: 2377232 Matrix: Non Aqueous Liquid
Associated Lab Samples: 92399573001, 92399573002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	ND	1.0	09/17/18 14:20	
PCB-1221 (Aroclor 1221)	mg/kg	ND	1.0	09/17/18 14:20	
PCB-1232 (Aroclor 1232)	mg/kg	ND	1.0	09/17/18 14:20	
PCB-1242 (Aroclor 1242)	mg/kg	ND	1.0	09/17/18 14:20	
PCB-1248 (Aroclor 1248)	mg/kg	ND	1.0	09/17/18 14:20	
PCB-1254 (Aroclor 1254)	mg/kg	ND	1.0	09/17/18 14:20	
PCB-1260 (Aroclor 1260)	mg/kg	ND	1.0	09/17/18 14:20	
Decachlorobiphenyl (S)	%	102	49-130	09/17/18 14:20	

LABORATORY CONTROL SAMPLE & LCSD: 2377233			2377234							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	10	8.5	8.9	85	89	50-148	5	30	
PCB-1260 (Aroclor 1260)	mg/kg	10	9.8	9.9	98	99	53-149	1	30	
Decachlorobiphenyl (S)	%				116	119	49-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALIFIERS

Project: EPA
Pace Project No.: 92399573

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

D4 Sample was diluted due to the presence of high levels of target analytes.

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.


QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: EPA
Pace Project No.: 92399573

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92399573001	SAMPLE 1	EPA 3580	430973	EPA 8082A	430979
92399573002	SAMPLE 2	EPA 3580	430973	EPA 8082A	430979

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐

WO# : 92399573



Date/Initials Person Examining Contents: 9/17/18

Sample Condition
Upon Receipt

Client Name: Heraio

Project #:

Courier:

☐ Commercial

☐ Fed Ex

☐ Pace

☐ UPS

☐ USPS

☐ Other: _____

☒ Client

Custody Seal Present?

☐ Yes

☒ No

Seals Intact?

☐ Yes

☒ No

Packing Material:

☐ Bubble Wrap

☐ Bubble Bags

☒ None

☐ Other

Thermometer:

Gun ID: 92T045

Type of Ice:

☐ Wet

☐ Blue

☒ None

Biological Tissue Frozen?

☐ Yes

☒ No

☐ N/A

Cooler Temp (°C): 27.3

Correction Factor: Add/Subtract (°C)

-0.1

Temp should be above freezing to 6°C

Cooler Temp Corrected (°C): 27.2

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil ☒ N/A, water sample

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	<u>24 hr</u>
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix: <u>nl</u>			
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____


Date/Time: _____

Project Manager SCURF Review: _____

Date: 9/17

Project Manager SRF Review: _____

Date: 9/17

	Document Name:	Document Revised: February 7, 2018
	Sample Condition Upon Receipt(SCUR)	Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottle

Project : **WO# : 92399573**

PM: PTE Due Date: 09/17/18

CLIENT: 92-HEPACO

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																												
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples						
Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

